



U.S. ENVIRONMENTAL PROTECTION AGENCY  
 Office of Pesticide Programs  
 Biopesticides and Pollution Prevention Division (7511P)  
 1200 Pennsylvania Ave., N.W.  
 Washington, D.C. 20460

EPA Reg. Number:

48222-12

Date of Issuance:

9/12/2017

NOTICE OF PESTICIDE:

Registration  
 Reregistration  
 (under FIFRA, as amended)

Term of Issuance:

Unconditional

Name of Pesticide Product:

Sysstem ZN

Name and Address of Registrant (include ZIP Code):

Agro-K Corporation  
 8030 MAIN STREET N.E.  
 MINNEAPOLIS, MN 55432

**Note:** Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Biopesticides and Pollution Prevention Division prior to use of the label in commerce. In any correspondence on this product, always refer to the above EPA Registration Number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA or the Act).

Registration is in no way to be construed as an endorsement or recommendation of this product by the U.S. Environmental Protection Agency (EPA). In order to protect health and the environment, the Administrator, on his or her motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under the Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit and/or cite all data required for registration or registration review of your product when the EPA requires all registrants of similar products to submit such data.
2. Make the following labeling change before you release this product for shipment:
  - Revise the EPA Registration Number to read, "EPA Reg. No. 48222-12."

Signature of Approving Official:

Andrew Bryceland, Team Leader  
 Biochemical Pesticides Branch  
 Biopesticides and Pollution Prevention Division (7511P)  
 Office of Pesticide Programs

Date:

9/12/2017

3. Submit one (1) copy of the final printed labeling for the record before you release this product for shipment.

Should you wish to add/retain a reference to your company's website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the EPA. If the website is false or misleading, the product will be considered to be misbranded and sale or distribution of the product is unlawful under FIFRA section 12(a)(1)(E). 40 CFR § 156.10(a)(5) lists examples of statements the EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the EPA find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA-approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance Assurance.

Your release for shipment of this product constitutes acceptance of these terms. If these terms are not complied with, this registration will be subject to cancellation in accordance with FIFRA section 6. A stamped copy of the labeling is enclosed for your records. Please also note that the record for this product currently contains the following acceptable Confidential Statement of Formula (CSF):

- Basic CSF dated 08/31/2017

Any CSFs other than those listed above are superseded.

If you have any questions, please contact Alex Horansky of my team by phone at (703) 347-0128 or via email at [Horansky.alex@epa.gov](mailto:Horansky.alex@epa.gov).

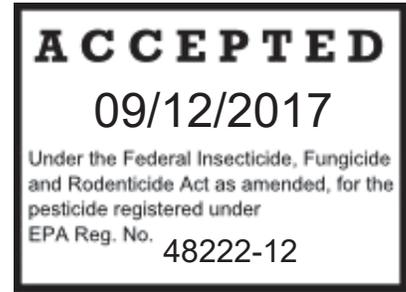
Sincerely,



Andrew Bryceland, Team Leader  
Biochemical Pesticides Branch  
Biopesticides and Pollution  
Prevention Division (7511P)  
Office of Pesticide Programs

Enclosure

**System ZN**  
**Agricultural Fungicide**



**ACTIVE INGREDIENTS:**

Phosphorous Acid\* ..... 45.00 %

**OTHER INGREDIENTS:** ..... 55.00 %

**TOTAL** ..... 100.00 %

\*Contains 6.3 lbs./gallon of active ingredients of Phosphorous Acid. Equivalent to 4.1 lbs. Phosphorous Acid/gallon (38% by weight).

**KEEP OUT OF THE REACH OF CHILDREN**

**DANGER**

<b>FIRST AID STATEMENTS</b>	
If in eyes	<ul style="list-style-type: none"> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
IF SWALLOWED:	<ul style="list-style-type: none"> <li>Call poison control center or doctor immediately for treatment advice.</li> <li>Have person sip a glass of water, if able to swallow.</li> <li>Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>
IF INHALED:	<ul style="list-style-type: none"> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>
IF ON SKIN OR CLOTHING:	<ul style="list-style-type: none"> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
<b>HOT LINE NUMBER</b>	
Have the container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact the National Pesticide Information Center (NPIC) at 1-800-858-7378 for emergency medical treatment information.	

SEE BACK PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS

EPA REG. NO. 48222-RE

NET CONTENTS: 2.5 gal. \_\_\_ 5.0 gal \_\_\_ 275 gal \_\_\_

EPA EST. NO. 48222-MN-001

BATCH CODE: \_\_\_\_\_

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

## DANGER – PELIGRO

**DANGER:** Causes irreversible eye damage. Do not get in eyes or on clothing. Wear (specify appropriate protective eyewear such as goggles, face shield, or safety glasses). Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or, drinking, chewing gum, using tobacco using the toilet. Remove and was contaminated clothing before reuse. or using the toilet.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear long-sleeved shirt and long pants, shoes plus socks and protective eyewear. Follow manufacturer's instructions for cleaning/maintaining personal protective equipment (PPE). If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

#### USER SAFETY RECOMMENDATIONS

Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Users should remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

#### ENVIRONMENTAL HAZARDS

For terrestrial uses: Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash waters or rinsate.

#### DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Read entire label before using this product.

Do not apply this product in a way that will contact workers or other person, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the State or Tribal agency responsible for pesticide regulation.

#### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Workers Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated such as plants, soil, or water, is: coveralls over long-sleeved shirt and long pants, socks, shoes, chemical resistant gloves and protective eyewear.

### **NON-AGRICULTURAL USE REQUIREMENTS**

The requirements of this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Do not enter treated areas without protective clothing until sprays have dried.

### **GENERAL APPLICATION INSTRUCTIONS**

Apply SYSSTEM ZN by various application methods, including foliar sprays, trunk injection, soil drench, soil incorporation, and bare root dip. For foliar sprays, apply SYSSTEM ZN with sufficient water for adequate coverage of foliage, according to crop and growth stage. To insure good coverage, spray to wet.

### **MIXING INSTRUCTIONS**

1. Fill the spray tank with 1/2 of the required volume of water
2. Add SYSSTEM ZN slowly to the tank and agitate by hydraulic or mechanical means.
3. Continue to fill the tank with water to the desired volume while agitating.
4. Continue agitation when applying.

For 1 gallon (3.785 liters) container sizes: this package can treat up to 34,848 sq. ft. at the maximum treatment rate. For 2 1/2 gallon (9.463 liters) container sizes: this package can treat up to 4 acres at the maximum treatment rate.

### **LOW VOLUME AND ULTRA-LOW VOLUME APPLICATIONS**

Label rates are written for conventional application equipment. For LV/ULV equipment, use per acre rate of SYSSTEM ZN and adjust amount of water to equipment needs. Always conduct a phytotoxicity test on a small area before applying to a large area in order to assess any potential risk to plants.

### **COMPATABILITY**

Mixing SYSSTEM ZN with certain surfactants, foliar fertilizers or other pesticides may cause crop injury. Do not apply this product with fixed copper based fungicides.

SYSSTEM ZN is a slightly acidic buffer solution. Avoid mixing SYSSTEM ZN with strongly acidic or alkaline materials. Do not tank mix without first testing the mixture's compatibility nor apply it without assessing its safety to the crop (phytotoxicity). It is not possible to test all material combinations and environmental tank mix combinations. Always conduct a test with the intended tank mix on a small area prior to any large scale applications. To determine if a combination is phytotoxic to a specific crop, spray a small area of foliage and fruit, and then evaluate 3-7 days later for visual symptoms.

Test the compatibility of spray adjuvants (i.e. stickers, spreaders, wetting agents) with SYSSTEM ZN before use. Do not use acidifying type compatibility agents.

To determine the compatibility of SYSSTEM ZN with other products, use a jar compatibility test. Add the correct proportions of each product and the appropriate quantity of water to clean container, thoroughly mix, then let stand for 3-5 minutes. If the mixture remains in solution or can be remixed readily, the products are considered compatible.

### **CHEMIGATION APPLICATIONS THROUGH SPRINKLER AND DRIP IRRIGATION SYSTEMS**

Posting of areas to be chemigated is required when 1) any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, day care centers, hospitals, in-patient clinics, nursing homes or any public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or 2) when the chemigated area is open to the public such as golf courses or retail greenhouses.

Posting must conform to the following requirements. Treated areas shall be posted with signs at all usual points of entry and

along likely routes of approach from the listed sensitive area. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other locations affording maximum visibility to sensitive areas. The printed side of the sign should face away from the treated area towards the sensitive area. The signs shall be printed in English. Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to event deterioration and maintain legibility for the duration of the posting period.

All words shall consist of letters at least 2 1/2 inches tall, and all letters and the symbol shall be a color which sharply contrasts with their immediate background. At the top of the sign shall be the words KEEP OUT, followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word STOP. Below the symbol shall be the words PESTICIDES IN IRRIGATION WATER.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water." "If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

Apply this product through microjet, drip, solid set and center pivot sprinkler irrigation systems. Do not apply this product through any other type of irrigation system.

**PREPARATION OF INJECTION EQUIPMENT:** Remove scale, pesticide residues and other foreign matter from the chemical tank and entire injector system. Flush with clean water.

**APPLICATION INSTRUCTIONS:** Fill tank with 1/2 to 3/4 of desired amount of water. Start mechanical or hydraulic agitation. Add the required amount of SYSSTEM ZN, then the remaining volume of water. Set sprinkler to deliver 0.1 to 0.3 inch of water per acre. Start sprinkler and uniformly inject the solution of SYSSTEM ZN into the irrigation water line so as to deliver the desired rate per acre. Inject the SYSSTEM ZN solution with a positive displacement pump into the main line ahead of a right angle turn to insure adequate mixing. For other questions about calibration, contact State Extension Service specialists, equipment manufacturers or other experts.

**NOTE:** For Microjet and Drip Irrigation Systems: Avoid further irrigation of the treated area for 24 to 48 hours after treatment with SYSSTEM ZN has been completed. For Solid Set and Center Pivot Irrigation Systems: Avoid further irrigation of the SYSSTEM ZN treated area until after the foliage has completely dried. This will help to prevent washing the chemical off the crop.

#### GENERAL PRECAUTIONS FOR APPLICATIONS THROUGH SPRINKLER AND DRIP IRRIGATION SYSTEMS

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back flow. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down the system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock. Do not apply when wind speed favors drift beyond the area intended for treatment.

Maintain continuous agitation in mix tank during mixing and application to assure uniformity solution. Do not apply when wind speed favors drift, when system connection or fittings leak, when nozzles do not provide uniform distribution, or when lines containing the product must be dismantled or drained. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop may result from non-uniform distribution of chemigation water.

Allow sufficient time for pesticide to be flushed through all lines and all nozzles before turning off irrigation water. A person knowledgeable of the chemigation system and responsible for its operation shall shut down and adjust the system as needed.

Do not connect an irrigation system (including greenhouse system) used for pesticide application to a public water system unless the label-prescribed safety devices for public water supplies are in place.

GENERAL INSTRUCTIONS FOR APPLICATIONS  
FOOD CROPS

SYSSTEM ZN fungicide is used for control, or suppression, of Downy Mildew, Powdery Mildew, *Erwinia amylovora*, Pythium, Fusarium, Rhizoctonia and Phytophthora disease (such as purple blotch, late blight, blue mold, soft rot, root rot, brown rot, foot rot, crown/collar rot, canker, fruit/foiar rot, fire blight, heart rot, pink rot, pythium leak, red stele, leather rot, etc.) of agronomic crops. (See specific crop groupings for additional diseases.) This product may be applied up to the day of harvest.

FOR ALL CROPS: Make applications prior to disease development in conjunction with good cultural management practices. \*Use the higher rate when disease pressure is severe. Use rates and frequency are designed to prevent plant injury. If more frequent applications are necessary for disease control, or suppression, consult a crop expert and follow their recommendations. Do not exceed the highest rate per application. Do not apply at less than 3 day intervals. Do not apply to plants that are dormant or heat or moisture stressed. Allow foliage to completely dry after application. Do not apply when conditions favor wet tissue for prolonged periods (>4 hours). Do not apply when temperatures are at or above 90 degrees.

\* Check with your local Extension Agent if you are unsure these conditions exist.

Apply SYSSTEM ZN to plants including:

**Berry Crop Group:** Blackberry ( including bingberry, black satin berry, boysenberry, Cherokee blackberry, Chesterberry, Cheyenne blackberry, coryberry, darrowberry, dewberry, Dirksen thornless berry, Grapes (all types), Himalayaberry, hullberry, Lavacaberry, lowberry, Lucretiaberry, mammoth blackberry, marionberry, nectarberry, olallieberry, Oregon evergreen berry, phenomenalberry, rangeberry, ravenberry, rossberry, Shawnee blackberry, youngberry, and varieties and/or hybrids of these), Blueberry, Cane Berries, Cranberry, Currant, Elderberry, Gooseberry, Huckleberry, Loganberry, Raspberry (black and red) and Strawberry.

Disease	Application Method	Rate	Prevention Program	Control Program
Phytophthora Pythium Fusarium Rhizoctonia <i>Xanthomonas campestris</i> Anthracnose	Foliar or	1 to 3 quarts in a minimum of 20 gallons of water per acre. (5 to 7 liters in minimum of 100 liters of water per hectare)	Disease Prevention Program*: Apply lower rate at 2-4 week intervals after plants become established. Do not apply SYSSTEM ZN at intervals less than 3 days.	Disease Control Program*: Apply higher rate at 2-3 week intervals until control is reached. Do not apply SYSSTEM ZN at intervals less than 3 days.
	Aerial Application	1 to 3 quarts in a minimum of 3 gallons of water per acre. (5 to 7 liters in a minimum of 75 liters of water per hectare.)	Disease Prevention Program*: Apply lower rate at 2-4 week intervals after plants become established. Do not apply SYSSTEM ZN at intervals less than 3 days.	Disease Control Program*: Apply higher rate at 2-3 week intervals until control is reached.
	Root Dip	2 quart/100 gallons of water, 2/3 fluid ounce/gallon of water. (2.5 liters/1000 liters of water)	Apply a pre-plant dip immediately prior to planting. (100 gallons is intended to treat the number of slips required to plant	

			one acre).	
	Irrigation	Overhead: 2-4 quarts in at least 100 gallons of water. (7-9 liters in at least 1000 liters of water)  Drip: 2-3 quarts in at least 100 gallons of water. (5-7 liters in at least 1000 liters of water)	Apply with normal irrigation schedule. Follow Disease Prevention Program or Disease Control Program as stated above. Do not apply SYSSTEM ZN at intervals less than 3 days.	
Downy Mildew  Powdery Mildew	Foliar  or	1 to 3 quarts in a minimum of 20 gallons of water per acre. (5 to 7 liters in minimum of 100 liters of water per hectare)	Apply at 2-3 week intervals. Follow Disease Prevention Program or Disease Control Program as stated above. Do not apply SYSSTEM ZN at intervals less than 3 days.	
	Aerial	1 to 3 quarts in a minimum of 10 gallons of water per acre. (5 to 7 liters in a minimum of 75 liters of water per hectare.)		

\* Check with your local Extension Agent if you are unsure these conditions exist

**Brassica Crop Group:** Broccoli (all types), Brussels sprouts, Cabbage (all types), Cauliflower, Cavalo broccoli, Collards, Kale, Kohlrabi, Mizuna, Mustard greens, Mustard spinach and Rape greens.

Disease	Application Method	Rate	Prevention Program	Control Program
Phytophthora Pythium Fusarium Rhizoctonia <i>Xanthomonas campestris</i> Anthracnose	Foliar or	1 to 3 quarts in a minimum of 20 gallons of water per acre. (5 to 7 liters in minimum of 100 liter of water per hectare)	Disease Prevention Program*: Apply lower rate at 2-4 week intervals after plants become established. Do not apply SYSSTEM ZN at intervals less than 3 days.	Disease Control Program*: Apply higher rate at 2-3 week intervals until control is reached.  Do not apply SYSSTEM ZN at intervals less than 3 days.
	Aerial Application	1 to 3 quarts in a minimum of 3 gallons of water per acre. (5 to 7 liters in a minimum of 75 liters of water per hectare.)	Disease Prevention Program*: Apply lower rate at 2-4 week intervals after plants become established. Do not apply SYSSTEM ZN at intervals less than 3 days.	Disease Control Program*: Apply higher rate at 2-3 week intervals until control is reached.
	Root Dip	2 quart/100 gallons of water, 2/3 fluid ounce/gallon of	Apply a pre-plant dip immediately prior to planting. (100 gallons is	

		water. (2.5 liters/1000 liters of water)	intended to treat the number of slips required to plant one acre).	
	Irrigation	Overhead: 2-4 quarts in at least 100 gallons of water. (7-9 liters in at least 1000 liters of water)  Drip: 2-3 quarts in at least 100 gallons of water. (5-7 liters in at least 1000 liters of water)	Apply with normal irrigation schedule. Follow Disease Prevention Program or Disease Control Program as stated above. Do not apply SYSSTEM ZN at intervals less than 3 days.	
Downy Mildew Powdery Mildew	Foliar or	1 to 3 quarts in a minimum of 20 gallons of water per acre. (5 to 7 liters in minimum of 100 liters of water per hectare)	Apply at 2-3 week intervals. Follow Disease Prevention Program or Disease Control Program as stated above. Do not apply SYSSTEM ZN at intervals less than 3 days.	
	Aerial	1 to 3 quarts in a minimum of 10 gallons of water per acre. (5 to 7 liters in a minimum of 75 liters of water per hectare.)		

\* Check with your local Extension Agent if you are unsure these conditions exist

**Cereal Grains, Forage and Fiber Crop Group:** Alfalfa, Barley, Buckwheat, Canola, Clover (all types), Com (all types), Cotton, Hay, Kudzu, Lespedeza, Lupin, Millet, Oats, Popcorn, Rice, Rye, Safflower, Sainfoin, Sorghum, Sunflower, Teosinte, Trefoil, Triticale, Vetch, Wheat and Wild rice.

Disease	Application Method	Rate	Prevention Program	Control Program
Phytophthora Pythium Fusarium Rhizoctonia Xanthomonas campestris Anthracnose	Foliar or	1 to 3 quarts in a minimum of 20 gallons of water per acre. (5 to 7 liters in minimum of 100 liter of water per hectare)	Disease Prevention Program*: Apply lower rate at 2-4 week intervals after plants become established. Do not apply SYSSTEM ZN intervals less than 3 days.	Disease Control Program*: Apply higher rate at 2-3 week intervals until control is reached.  Do not apply SYSSTEM ZN at intervals less than 3 days.
	Aerial Application	1 to 3 quarts in a minimum of 10 gallons of water per acre. (5 to 7 liters in a minimum of 75 liters of water per hectare.)	Disease Prevention Program*: Apply lower rate at 2-4 week intervals after plants become established. Do not apply SYSSTEM ZN intervals less	Disease Control Program*: Apply higher rate at 2-3 week intervals until control is reached.

			than 3 days.	
	Root Dip	1 quart/100 gallons of water, 1/3 fluid ounce/gallon of water. (2.5 liters/1000 liters of water)	Apply a pre-plant dip immediately prior to planting. (100 gallons is intended to treat the number of slips required to plant one acre).	
	Irrigation	Overhead: 2-4 quarts in at least 100 gallons of water. (7-9 liters in at least 1000 liters of water)  Drip: 2-3 quarts in at least 100 gallons of water. (5-7 liters in at least 1000 liters of water)	Apply with normal irrigation schedule. Follow Disease Prevention Program or Disease Control Program as stated above. Do not apply SYSTEM ZN at intervals less than 3 days.	
Downy Mildew Powdery Mildew	Foliar or	1 to 3 quarts in a minimum of 20 gallons of water per acre. (5 to 7 liters in minimum of 100 liters of water per hectare)	Apply at 2-3 week intervals. Follow Disease Prevention Program or Disease Control Program as stated above. Do not at intervals apply SYSTEM ZN less than 3 days.	
	Aerial	1 to 3 quarts in a minimum of 10 gallons of water per acre. (5 to 7 liters in a minimum of 75 liters of water per hectare.)		
Corn Leaf Blight <i>Exserohilum trecicum</i>	Foliar	Apply 1-3 quarts in 10-20 gallons of water (5 to 7 liters in 100 liters per hectare)	For suppression start sprays when conditions are conducive to disease development.	Continue on a 7 day interval as long as conditions remain favorable.

\* Check with your local Extension Agent if you are unsure these conditions exist

**Citrus Crop Group (Bearing and Non-Bearing) including:** Avocado, Calamondin, Citrus hybrids, Grapefruit, Kumquat, Lemon, Lime, Mandarin, Orange (all types), Pummelo and Satsuma mandarin.

Disease	Application Method	Rate	Prevention Program	Control Program
Phytophthora Pythium Fusarium Rhizoctonia Xanthomonas campestris Anthracnose	Foliar or	1 to 3 quarts in a minimum of 20 gallons of water per acre. (5 to 7 liters in minimum of 100 liter of water per hectare)	Disease Prevention Program*: Apply lower rate at 2-4 week intervals after plants become established. Do not apply SYSTEM ZN at intervals less than 3 days.	Disease Control Program*: Apply higher rate at 2-3 week intervals until control is reached.

	Aerial Application	1 to 3 quarts in a minimum of 10 gallons of water per acre. (5 to 7 liters in a minimum of 75 liters of water per hectare.)	Disease Prevention Program*: Apply lower rate at 2-4 week intervals after plants become established. Do not apply SYSSTEM ZN at intervals less than 3 days.	Disease Control Program*: Apply higher rate at 2-3 week intervals until control is reached. Do not apply SYSSTEM ZN at intervals less than 3 days.
	Root Dip	1 quart/100 gallons of water, 1/3 fluid ounce/gallon of water. (2.5 liters/1000 liters of water)	Apply a pre-plant dip immediately prior to planting. (100 gallons is intended to treat the number of slips required to plant one acre).	
	Irrigation	Overhead: 2-4 quarts in at least 100 gallons of water. (7-9 liters in at least 1000 liters of water) Drip: 2-3 quarts in at least 100 gallons of water. (5-7 liters in at least 1000 liters of water)	Apply with normal irrigation schedule. Follow Disease Prevention Program or Disease Control Program as stated above. Do not apply SYSSTEM ZN at intervals less than 3 days.	
Downy Mildew Powdery Mildew	Foliar or	1 to 3 quarts in a minimum of 20 gallons of water per acre. (5 to 7 liters in minimum of 100 liters of water per hectare)	Apply at 2-3 week intervals. Follow Disease Prevention Program or Disease Control Program as stated above. Do not apply SYSSTEM ZN at intervals less than 3 days.	
	Aerial	1 to 3 quarts in a minimum of 10 gallons of water per acre. (5 to 7 liters in a minimum of 75 liters of water per hectare.)		

\* Check with your local Extension Agent if you are unsure these conditions exist

**Cucurbit Crop Group:** Chayote, Chinese waxgourd, Citron melon, Cucumber (all types), Gherkin, Gourd, Muskmelon, Pumpkin, Squash (summer and winter) and Watermelon.

Disease	Application Method	Rate	Prevention Program	Control Program
Phytophthora Pythium Fusarium Rhizoctonia <i>Xanthomonas campestris</i>	Foliar or	1 to 3 quarts in a minimum of 20 gallons of water per acre. (5 to 7 liters in minimum of 100	Disease Prevention Program*: Apply lower rate at 2-4 week intervals after plants become established. Do not	Disease Control Program*: Apply higher rate at 2-3 week intervals until control is reached. Do not apply SYSSTEM ZN at intervals less than 3 days.

Anthracnose		liter of water per hectare)	apply SYSSTEM ZN at intervals less than 3 days.	
	Aerial Application	1 to 3 quarts in a minimum of 10 gallons of water per acre. (5 to 7 liters in a minimum of 75 liters of water per hectare.)	Disease Prevention Program*: Apply lower rate at 2-4 week intervals after plants become established. Do not apply SYSSTEM ZN at intervals less than 3 days.	Disease Control Program*: Apply higher rate at 2-3 week intervals until control is reached. Do not apply SYSSTEM ZN at intervals less than 3 days.
	Root Dip	1 quart/100 gallons of water, 1/3 fluid ounce/gallon of water (2.5 liters/1000 liters of water)	Apply a pre-plant dip immediately prior to planting. (100 gallons is intended to treat the number of slips required to plant one acre).	
	Irrigation	Overhead: 2-4 quarts in at least 100 gallons of water. (7-9 liters in at least 1000 liters of water) Drip: 2-3 quarts in at least 100 gallons of water. (5-7 liters in at least 1000 liters of water)	Apply with normal irrigation schedule. Follow Disease Prevention Program or Disease Control Program as stated above. Do not apply SYSSTEM ZN at intervals less than 3 days.	
Downy Mildew Powdery Mildew	Foliar or	1 to 3 quarts in a minimum of 20 gallons of water per acre. (5 to 7 liters in minimum of 100 liters of water per hectare)	Apply at 2-3 week intervals. Follow Disease Prevention Program or Disease Control Program as stated above. Do not apply SYSSTEM ZN at intervals less than 3 days.	
	Aerial	1 to 3 quarts in a minimum of 10 gallons of water per acre. (5 to 7 liters in a minimum of 75 liters of water per hectare.)		

\* Check with your local Extension Agent if you are unsure these conditions exist

**Herbs and Spices Crop Group:** Allspice, Angelica, Anise, Annatto, Balm, Basil, Borage, Burnet, Camomile, Capers buds, Caraway, Cardamom, Cassia bark and buds, Catnip, Celery seed, Chervil, Chive, Cinnamon, Clary, Clove, Cocoa, Coriander, Costmary, Cilantro, Cumin, Curry, Dill, Fennel, Fenugreek, Grains of paradise, Hops, Horehound, Hyssop, Juniper berry, Lavender, Lemongrass, Lovage, Mace, Marigold, Marjoram, Mint, Mustard, Nasturtium, Nutmeg, Parsley, Pennyroyal, Pepper, Poppy seed, Rosemary, Rue, Saffron, Sage, Savory, Sweet bay, Tansy, Tarragon, Thyme, Vanilla, Wintergreen, Woodruff and Wormwood.

Disease	Application Method	Rate	Prevention Program	Control Program
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Phytophthora Pythium Fusarium Rhizoctonia <i>Xanthomonas campestris</i> Anthracnose	Foliar or	1 to 3 quarts in a minimum of 20 gallons of water per acre. (5 to 7 liters in minimum of 100 liter of water per hectare)	Disease Prevention Program*: Apply lower rate at 2-4 week intervals after plants become established. Do not apply SYSTEM ZN at intervals less than 3 days.	Disease Control Program*: Apply higher rate at 2-3 week intervals until control is reached. Do not apply SYSTEM ZN at intervals less than 3 days.
	Aerial Application	1 to 3 quarts in a minimum of 10 gallons of water per acre. (5 to 7 liters in a minimum of 75 liters of water per hectare.)	Disease Prevention Program*: Apply lower rate at 2-4 week intervals after plants become established. Do not apply SYSTEM ZN at intervals less than 3 days.	Disease Control Program*: Apply higher rate at 2-3 week intervals until control is reached.
	Root Dip	1 quart/100 gallons of water, 1/3 fluid ounce/gallon of water. (2.5 liters/1000 liters of water)	Apply a pre-plant dip immediately prior to planting. (100 gallons is intended to treat the number of slips required to plant one acre).	
	Irrigation	Overhead: 2-4 quarts in at least 100 gallons of water. (7-9 liters in at least 1000 liters of water)  Drip: 2-3 quarts in at least 100 gallons of water. (5-7 liters in at least 1000 liters of water)	Apply with normal irrigation schedule. Follow Disease Prevention Program or Disease Control Program as stated above. Do not apply SYSTEM ZN at intervals less than 3 days.	
Downy Mildew Powdery Mildew	Foliar or	1 to 3 quarts in a minimum of 20 gallons of water per acre. (5 to 7 liters in minimum of 100 liters of water per hectare)	Apply at 2-3 week intervals. Follow Disease Prevention Program or Disease Control Program as stated above. Do not apply SYSTEM ZN at intervals less than 3 days.	
	Aerial	1 to 3 quarts in a minimum of 10 gallons of water per acre. (5 to 7 liters in a minimum of 75 liters of water per hectare.)		

\* Check with your local Extension Agent if you are unsure these conditions exist

**Legume Vegetables Crop Group:** Bean (all types), broad bean (fava bean), Chick pea (garbanzo bean), Guar, Jackbean,

Lablab bean, Lentil, Pea (all types), Peanut, Pigeon pea, Soybean and Sword bean.

Disease	Application Method	Rate	Prevention Program	Control Program
Phytophthora Pythium Fusarium Rhizoctonia <i>Xanthomonas campestris</i> Anthracnose Early & Late Leaf Spot on Peanut <i>Cercospora arachidicola</i> and <i>Cercospora personatum</i>	Foliar or	1 to 3 quarts in a minimum of 20 gallons of water per acre. (5 to 7 liters in minimum of 100 liter of water per hectare)	Disease Prevention Program*: Apply lower rate at 2-4 week intervals after plants become established. Do not apply SYSSTEM ZN at intervals less than 3 days.	Disease Control Program*: Apply higher rate at 2-3 week intervals until control is reached. Do not apply SYSSTEM ZN at intervals less than 3 days.
	Aerial Application	1 to 3 quarts in a minimum of 10 gallons of water per acre. (5 to 7 liters in a minimum of 75 liters of water per hectare.)	Disease Prevention Program*: Apply lower rate at 2-4 week intervals after plants become established. Do not apply SYSSTEM ZN at intervals less than 3 days.	Disease Control Program*: Apply higher rate at 2-3 week intervals until control is reached.
	Root Dip	1 quart/100 gallons of water, 1/3 fluid ounce/gallon of water. (2.5 liters/1000 liters of water)	Apply a pre-plant dip immediately prior to planting. (100 gallons is intended to treat the number of slips required to plant one acre).	
	Irrigation	Overhead: 2-4 quarts in at least 100 gallons of water. (7-9 liters in at least 1000 liters of water)  Drip: 2-3 quarts in at least 100 gallons of water. (5-7 liters in at least 1000 liters of water)	Apply with normal irrigation schedule. Follow Disease Prevention Program or Disease Control Program as stated above. Do not apply SYSSTEM ZN at intervals less than 3 days.	
Downy Mildew  Powdery Mildew	Foliar  or	1 to 3 quarts in a minimum of 20 gallons of water per acre. (5 to 7 liters in a minimum of 100 liters of water per hectare)	Apply at 2-3 week intervals. Follow Disease Prevention Program or Disease Control Program as stated above. Do not apply SYSSTEM ZN at intervals less than 3 days.	
	Aerial	1 to 3 quarts in a minimum of 10 gallons of water per acre.		

		(5 to 7 liters in a minimum of 75 liters of water per hectare.)		
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\*Check with your local Extension Agent if you are unsure these conditions exist

**Pome Fruits Crop Group (Bearing and Non-Bearing) including:** Apple, Crabapple, Loquat, Mayhaw, Papaya, Pear, and Quince.

Disease	Application Method	Rate	Prevention Program	Control Program
Phytophthora Pythium Fusarium Rhizoctonia <i>Xanthomonas campestris</i>	Foliar or	1 to 3 quarts in a minimum of 20 gallons of water per acre. (5 to 7 liters in minimum of 100 liter of water per hectare)	Disease Prevention Program*: Apply lower rate at 2-4 week intervals after plants become established. Do not apply SYSTEM ZN at intervals less than 3 days.	Disease Control Program*: Apply higher rate at 2-3 week intervals until control is reached. Do not apply SYSTEM ZN at intervals less than 3 days.
	Aerial Application	1 to 3 quarts in a minimum of 10 gallons of water per acre. (5 to 7 liters in a minimum of 75 liters of water per hectare.)	Disease Prevention Program*: Apply lower rate at 2-4 week intervals after plants become established. Do not apply SYSTEM ZN at intervals less than 3 days.	Disease Control Program*: Apply higher rate at 2-3 week intervals until control is reached.
	Root Dip	1 quart/100 gallons of water, 1/3 fluid ounce/gallon of water. (2.5 liters/1000 liters of water)	Apply a pre-plant dip immediately prior to planting. (100 gallons is intended to treat the number of slips required to plant one acre).	
	Irrigation	Overhead: 2-4 quarts in at least 100 gallons of water. (7-9 liters in at least 1000 liters of water)  Drip: 2-3 quarts in at least 100 gallons of water. (5-7 liters in at least 1000 liters of water)	Apply with normal irrigation schedule. Follow Disease Prevention Program or Disease Control Program as stated above. Do not apply SYSTEM ZN at intervals less than 3 days.	
	Trunk Injection	3 teaspoons per linear yard of canopy or 2 inch trunk diameter at breast height. (15 milliliter per meter of canopy. Inject directly into tree trunk.	Apply according to injection equipment instructions. Adjust rate based on injection equipment suggestions. Repeat 2-4 times per year until control is reached.	
Downy Mildew Powdery Mildew	Foliar or	1 to 3 quarts in a minimum of 20	Apply at 2-3 week intervals. Follow	

		gallons of water per acre. (5 to 7 liters in minimum of 100 liters of water per hectare)	Disease Prevention Program or Disease Control Program as stated above. Do not apply SYSTEM ZN at intervals less than 3 days.	
	Aerial	1 to 3 quarts in a minimum of 20 gallons of water per acre. (5 to 7 liters in a minimum of 75 liters of water per hectare.)		
Fire Blight ( <i>Erwinia amylovora</i> )	Foliar (Suppression Only)	1 to 3 quarts in a minimum of 20 gallons of water per acre. (5 to 7 liters in minimum of 100 liter of water per hectare)	Disease Prevention Program*: Apply lower rate at 2-4 week intervals after disease become established. Do not apply SYSTEM ZN at intervals less than 3 days.	Disease Suppression Program*: Apply higher rate at 2-3 week intervals until control is reached. Do not apply SYSTEM ZN at intervals less than 3 days.

\* Check with your local Extension Agent if you are unsure these conditions exist

**Stone Fruits Crop Group including:** Apricot, Cherry, Nectarine, Olive, Peach, Plum, Plumcot and Prune.

Disease	Application Method	Rate	Prevention Program	Control Program
Phytophthora Pythium Fusarium Rhizoctonia <i>Xanthomonas campestris</i>	Foliar or	1 to 3 quarts in a minimum of 20 gallons of water per acre. (5 to 7 liters in minimum of 100 liter of water per hectare)	Disease Prevention Program*: Apply lower rate at 2-4 week intervals after plants become established. Do not apply SYSTEM ZN at intervals less than 3 days.	Disease Control Program*: Apply higher rate at 2-3 week intervals until control is reached. Do not apply SYSTEM ZN at intervals less than 3 days.
	Aerial Application	1 to 3 quarts in a minimum of 10 gallons of water per acre. (5 to 7 liters in a minimum of 75 liters of water per hectare.)	Disease Prevention Program*: Apply lower rate at 2-4 week intervals after plants become established. Do not apply SYSTEM ZN at intervals less than 3 days.	Disease Control Program*: Apply higher rate at 2-3 week intervals until control is reached. Do not apply SYSTEM ZN at intervals less than 3 days.
	Root Dip	1 quart/100 gallons of water, 1/3 fluid ounce/gallon of water. (2.5 liters/1000 liters of water)	Apply a pre-plant dip immediately prior to planting. (100 gallons is intended to treat the number of slips required to plant one acre).	
	Irrigation	Overhead: 2-4 quarts in at least 100 gallons of water. (7-	Apply with normal irrigation schedule. Follow Disease	

		9 liters in at least 1000 liters of water)  Drip: 2-3 quarts in at least 100 gallons of water. (5-7 liters in at least 1000 liters of water)	Prevention Program or Disease Control Program as stated above. Do not apply SYSTEM ZN at intervals less than 3 days.	
	Trunk Injection	3 teaspoons per linear yard of canopy or 2 inch trunk diameter at breast height. (15 milliliter per meter of canopy. Inject directly into tree trunk.	Apply according to injection equipment instructions. Adjust rate based on injection equipment suggestions. Repeat 2-4 times per year until control is reached.	
Downey Mildew Powdery Mildew	Foliar or	1 to 3 quarts in a minimum of 20 gallons of water per acre. (5 to 7 liters in minimum of 100 liters of water per hectare)	Apply at 2-3 week intervals. Follow Disease Prevention Program or Disease Control Program as stated above. Do not apply SYSTEM ZN at intervals less than 3 days.	
	Aerial	1 to 3 quarts in a minimum of 10 gallons of water per acre. (5 to 7 liters in a minimum of 75 liters of water per hectare.)		

\* Check with your local Extension Agent if you are unsure these conditions exist

**Tree Nuts and Grapes:** Almond, Beech nut, Betelnut Palm, Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert, Grapes (all types), Hickory nut, Kiwi, Macadamia nut, Pecan, Pistachio, Vines and Walnut.

Disease	Application Method	Rate	Prevention Program	Control Program
Phytophthora Pythium Fusarium Rhizoctonia <i>Xanthomonas campestris</i>	Foliar or	1 to 3 quarts in a minimum of 20 gallons of water per acre. (5 to 7 liters in minimum of 100 liter of water per hectare)	Disease Prevention Program*: Apply lower rate at 2-4 week intervals after plants become established. Do not apply SYSTEM ZN at intervals less than 3 days.	Disease Control Program*: Apply higher rate at 2-3 week intervals until control is reached. Do not apply SYSTEM ZN at intervals less than 3 days.
	Aerial Application	1 to 3 quarts in a minimum of 10 gallons of water per acre. (5 to 7 liters in a minimum of 100 liters of water per hectare.)	Disease Prevention Program*: Apply lower rate at 2-4 week intervals after plants become established. Do not apply SYSTEM ZN at intervals less	Disease Control Program*: Apply higher rate at 2-3 week intervals until control is reached.

			than 3 days.	
	Root Dip	1 quart/100 gallons of water, 1/3 fluid ounce/gallon of water. (2.5 liters/1000 liters of water)	Apply a pre-plant dip immediately prior to planting. (100 gallons is intended to treat the number of slips required to plant one acre).	
	Irrigation	Overhead: 2-4 quarts in at least 100 gallons of water. (7-9 liters in at least 1000 liters of water)  Drip: 2-3 quarts in at least 100 gallons of water. (5-7 liters in at least 1000 liters of water)	Apply with normal irrigation schedule. Follow Disease Prevention Program or Disease Control Program as stated above. Do not apply SYSTEM ZN at intervals less than 3 days.	
	Trunk Injection	3 teaspoons per linear yard of canopy or 2 inch trunk diameter at breast height. (15 milliliter per meter of canopy. Inject directly into tree trunk.	Apply according to injection equipment instructions. Adjust rate based on injection equipment suggestions. Repeat 2-4 times per year until control is reached.	
Downey Mildew Powdery Mildew	Foliar or	1 to 3 quarts in a minimum of 20 gallons of water per acre. (5 to 7 liters in minimum of 100 liters of water per hectare)	Apply at 2-3 week intervals. Follow Disease Prevention Program or Disease Control Program as stated above. Do not apply SYSTEM ZN at intervals less than 3 days.	
	Aerial	1 to 3 quarts in a minimum of 10 gallons of water per acre. (5 to 7 liters in a minimum of 75 liters of water per hectare.)		

\* Check with your local Extension Agent if you are unsure these conditions exist

**Vegetables Crop Group Including Miscellaneous Food Crops:** (Leafy, Root and Tuber) Amaranth (Chinese spinach, tampala, etc.) Arracacha, Arugula, Arrowroot, Artichoke (all types), Asparagus, Beet (all types), Burdock, Canna, Cardoon, Carrot, Cassava, Celery, Celery, Celery, Chayote, Chervil (turnip-rooted), Chicory, Chilies, Chrysanthemum (edible), Chufa, Cinchoca, Coconut, Coffee, Com (all types), Cress (all types), Dandelion, Dasheen, Dock, Eggplant, Endive, Fennel, Garlic, Ginger, Ginseng, Horseradish, Leren, Lettuce (all types), Okra, Onion, Orach, Parsley, Parsnip, Peppers (all types), Pineapple, Purslane, Potato (all types)\*\*, Radicchio, Radish (all types), Rhubarb, Rutabaga, Salisify (all types), Skirret, Spinach (all types), Sugarbeet, Sugarcane, Sweet Potato, Swiss chard, Tanier, Tobacco, Tomato, Turmeric, Turnip, Yam (all types).

Disease	Application Method	Rate	Prevention Program	Control Program
Phytophthora Pythium Fusarium Rhizoctonia <i>Xanthomonas campestris</i> Anthracnose	Foliar or	1 to 3 quarts in a minimum of 20 gallons of water per acre. (5 to 7 liters in minimum of 100 liter of water per hectare)	Disease Prevention Program*: Apply lower rate at 2-4 week intervals after plants become established. Do not apply SYSSTEM ZN at intervals less than 3 days.	Disease Control Program*: Apply higher rate at 2-3 week intervals until control is reached. Do not apply SYSSTEM ZN at intervals less than 3 days.
	Aerial Application	1 to 3 quarts in a minimum of 10 gallons of water per acre. (5 to 7 liters in a minimum of 75 liters of water per hectare.)	Disease Prevention Program*: Apply lower rate at 2-4 week intervals after plants become established. Do not apply SYSSTEM ZN at intervals less than 3 days.	Disease Control Program*: Apply higher rate at 2-3 week intervals until control is reached. Do not apply SYSSTEM ZN at intervals less than 3 days.
	Root Dip	2 quart/100 gallons of water, 2/3 fluid ounce/gallon of water. (2.5 liters/1000 liters of water)	Apply a pre-plant dip immediately prior to planting. (100 gallons is intended to treat the number of slips required to plant one acre).	
	Irrigation	Overhead: 2-4 quarts in at least 100 gallons of water. (7-9 liters in at least 1000 liters of water)  Drip: 2-3 quarts in at least 100 gallons of water. (5-7 liters in at least 1000 liters of water)	Apply with normal irrigation schedule. Follow Disease Prevention Program or Disease Control Program as stated above. Do not apply SYSSTEM ZN at intervals less than 3 days.	
Downey Mildew  Powdery Mildew	Foliar  or	1 to 3 quarts in a minimum of 20 gallons of water per acre. (5 to 7 liters in minimum of 100 liters of water per hectare)	Apply at 2-3 week intervals. Follow Disease Prevention Program or Disease Control Program as stated above. Do not apply SYSSTEM ZN at intervals less than 3 days.	
	Aerial	1 to 3 quarts in a minimum of 10 gallons of water per acre. (5 to 7 liters in a minimum of 75 liters of water per hectare.)		
Potato (all types)**	Application Method	Rate	Prevention Program	Control/Suppression Program

Storage Diseases Pink Rot ( <i>Phytophthora erythroseptica</i> ) Pythium Leak ( <i>Pythium spp</i> )	In Furrow	3 to 5 quarts	For suppression of storage diseases such as Pink Rot and Pythium Leak apply 3 to 5 quarts in combination with 11.6 to 13 fluid ounces of a mefenoxam fungicide in a minimum of 3 gallons of water per acre. Apply in a band at planting directly over the seed pieces prior to row closure.	Additional in season foliar applications of SYSTEM ZN product tank mixed with a mefenoxam, chlorothalonil, mancozeb or copper fungicide is necessary when disease conditions are severe, the variety is susceptible to the disease, or the crop is planted in a long growing season area
Late Blight ( <i>Phytophthora infestans</i> ) Stem Canker ( <i>Rhizoctonia solani</i> ) (Suppression Only) Storage Diseases Pink Rot ( <i>Phytophthora erythroseptica</i> ) Pythium Leak ( <i>Pythium spp</i> )	Foliar or Aerial	3 to 5 quarts in a minimum of 20 gallons of water per acre. (5 to 7 liters in minimum of 100 liters of water per hectare)	Apply every 4 to 14 days depending on disease severity. For Late Blight, combine/rotate this product with a mefenoxam, chlorothalonil, triphenyl tin, mancozeb or copper fungicide labeled for Late Blight as necessary when disease conditions warrant. Do not apply SYSTEM ZN at intervals less than 3 days.	*Note: 1 gallon container will not be sufficient for treating pink rot and late blight at the highest given application rate. An additional 1 gallon container or a larger container size will be necessary to achieve the maximum treatment rate.
Post Harvest  Late Blight, Pink Rot, Silver Scurf ( <i>Streptomyces scabies</i> )	Spray	Apply 12.8 fluid ounces per ton of tubers in 0.5 gallon of water. Ensure complete coverage	Best disease control will be obtained with best management practices including complete sanitation of storage facilities and by maintaining the lowest temperature possible depending on the intended use of the crop.	

### ORNAMENTALS

SYSTEM ZN fungicide is used for control of Pythium, Downy Mildew, Powdery Mildew, Phytophthora and various other diseases of ORNAMENTALS grown in commercial nurseries and greenhouses, golf courses, parks and commercial landscapes. Apply SYSTEM ZN to all ornamental and landscape plants including (but not limited to): Aglaonema, Aphelandra, Arborvitae, Ash, Azaleas, Bougainvillea, Boxwood, Bushes, *Cattleya skimmeri*, Cedars, Ceanothus, Cotoneaster, Cissus, Diffenbachia, Dogwood, Ferns, Ficus, Flowering Trees, Hibiscus, Hard Wood Trees, Holly, Home Lawns, Juniper, Magnolia Trees, Maple, Pines, Oaks, Palms, Peperomia, Photinia, Pittosporum, Philodendron, Pieris, Pothos, Red woods, Rhododendron, Roses, Schefflera, Sedum, Sempervivum, Shrubs, Spathiphyllum, Sycamore, Taxus media, Zygocactus.

Apply SYSTEM ZN prior to disease development in conjunction with good cultural practices. Use the higher rate when disease pressure is severe. Use rates and frequency are designed to prevent plant injury. If more frequent applications are necessary for disease control, consult a crop expert and follow their recommendations. Do not exceed the highest rate per application. Do not apply at less than 3 day intervals. Do not apply to plants that are dormant or under heat or moisture stress. Allow foliage to completely dry after application. Do not apply when conditions favor wet tissue for prolonged

periods (>4 hours).

Disease	Application Method	Rate	Prevention Program	Control Program
Phytophthora Pythium Fusarium Rhizoctonia Bacterial Blight <i>Xanthomonas campestris</i> Fire Blight ( <i>Erwinia amylovora</i> ) Geranium Wilt ( <i>Ralstonia spp.</i> ) Anthracnose	Foliar Spray	1 to 2 quarts in a minimum of 100 gallons of water per acre. (2.5 to 5 liters in minimum of 1000 liter of water per hectare)	Disease Prevention Program*: Apply lower rate at 2-4 week intervals after plants become established. Do not apply SYSSTEM ZN at intervals less than 3 days.	Disease Control Program*: Apply higher rate at 2-3 week intervals until control is reached. Do not apply SYSSTEM ZN at intervals less than 3 days.
	Soil Drench	12-24 fluid ounce in 100 gallons of water per acre. (1 to 2 liters in 1000 liters of water per hectare.)	Disease Prevention Program*: Apply lower rate at 2-4 week intervals after plants become established. Do not apply SYSSTEM ZN at intervals less than 3 days.	Disease Control Program*: Apply higher rate at 2-3 week intervals until control is reached.
	Root Dip	1 quart/100 gallons of water, 1/3 fluid ounce/gallon of water. (2.5 liters/1000 liters of water)	Apply a pre-plant dip immediately prior to planting. (100 gallons is intended to treat the number of slips required to plant one acre).	
	Irrigation	Overhead: 1-2 quarts in at least 100 gallons of water. (2-5 liters in at least 1000 liters of water) Drip: 1-2 quarts in at least 100 gallons of water. (2.5-5 liters in at least 1000 liters of water)	Apply with normal irrigation schedule. Follow Disease Prevention Program or Disease Control Program as stated above. Do not apply SYSSTEM ZN at intervals less than 3 days.	
	Trunk Injection	3 teaspoons per linear yard of canopy or 2 inch trunk diameter at breast height. (15 milliliter per meter of canopy. Inject directly into tree trunk.	Apply according to injection equipment instructions. Adjust rate based on injection equipment suggestions. Repeat 2-4 times per year until control is reached.	
Downy Mildew Powdery Mildew	Foliar Spray	1 to 2 quarts in a minimum of 100 gallons of water per	Apply at 2-3 week intervals. Follow Disease Prevention	

		acre. (2.5 to 5 liters in minimum of 1000 liters of water per hectare)	Program or Disease Control Program as stated above.	
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### BEDDING PLANTS

SYSSTEM ZN fungicide is used for control, or suppression, of Downy Mildew, Powdery Mildew, Pythium, Phytophthora and various other diseases of bedding plants grown in commercial nurseries and greenhouses, golf courses, parks and commercial landscapes. Apply SYSSTEM ZN to all bedding plants including: Ageratum, Algerian Ivy, Alyssum, Anthurium, Artemisia, Aster, Baby's Breath, Begonia, Caladium, Carnation, Chrysanthemum, Coleus, Columbine, Daisy, Delphinium, Easter Lily, English Ivy, Foxglove, Gaillardia, Geranium, Gloxinia, Impatiens, Marigold, Pansy, Petunia, Phlox, Pinks, Poinsettia, Primrose, Prostrate Rosemary, Salvia, Snapdragon, Verbena, Vinca, Zinnia, etc.

Make applications prior to disease development in conjunction with good cultural management practices. Use the higher rate when disease pressure is severe. Use rates and frequency are designed to prevent plant injury. If more frequent applications are necessary for disease control, consult a crop expert and follow their recommendations. Do not exceed the highest rate per application. Do not apply at less than 3 day intervals. Do not apply to plants that are dormant or heat or moisture stressed. Allow foliage to completely dry after application. Do not apply when conditions favor wet tissue for prolonged periods (>4 hours).

Disease	Application Method	Rate	Prevention Program	Control Program
Phytophthora Pythium Fusarium Rhizoctonia Bacterial Blight <i>Xanthomonas campestris</i> Fire Blight ( <i>Erwinia amylovora</i> ) (Suppression Only) Geranium Wilt ( <i>Ralstonia spp.</i> ) Anthracnose	Foliar Spray	1 to 2 quarts in a minimum of 100 gallons of water per acre. (2.5 to 5 liters in minimum of 1000 liter of water per hectare)	Disease Prevention Program*: Apply lower rate at 2-4 week intervals after plants become established. Do not apply SYSSTEM ZN at intervals less than 3 days.	Disease Control Program*: Apply higher rate at 2-3 week intervals until control is reached. Do not apply SYSSTEM ZN at intervals less than 3 days.
	Soil Drench	12-24 fluid ounce in 100 gallons of water per acre. (1 to 2 liters in 1000 liters of water per hectare.)	Disease Prevention Program*: Apply lower rate at 2-4 week intervals after plants become established. Do not apply SYSSTEM ZN at intervals less than 3 days.	Disease Control Program*: Apply higher rate at 2-3 week intervals until control is reached.
	Root Dip	1 quart/100 gallons of water, 1/3 fluid ounce/gallon of water. (2.5 liters/1000 liters of water)	Apply a pre-plant dip immediately prior to planting. (100 gallons is intended to treat the number of slips required to plant one acre).	
	Irrigation	Overhead: 2-4 quarts in at least 100 gallons of water. (7-9 liters in at least	Apply with normal irrigation schedule. Follow Disease Prevention Program	

		1000 liters of water) Drip: 2-3 quarts in at least 100 gallons of water. (5-7 liters in at least 1000 liters of water)	or Disease Control Program as stated above. Do not apply SYSSTEM ZN at intervals less than 3 days.	
	Trunk Injection	3 teaspoons per linear yard of canopy or 2 inch trunk diameter at breast height. (15 milliliter per meter of canopy. Inject directly into tree trunk.	Apply according to injection equipment instructions. Adjust rate based on injection equipment suggestions. Repeat 2-4 times per year until control is reached.	
Downy Mildew Powdery Mildew	Foliar Spray	1 to 2 quarts in a minimum of 100 gallons of water per acre. (2.5 to 5 liters in minimum of 1000 liters of water per hectare)	Apply at 2-3 week intervals. Follow Disease Prevention Program or Disease Control Program as stated above.	

**CONIFERS AND TREES IN COMMERCIAL NURSERIES, PLANTATIONS AND FORESTS, LANDSCAPES AND PARKS (INCLUDING CHRISTMAS TREES, OAKS and PINES)**

SYSSTEM ZN applied in conjunction with good cultural management practices will control Phytophthora root rot of conifers including (but not limited to): Douglas Fir, spruce and pines also other Phytophthora disease of Oaks (Sudden Oak Death) and forest trees. Use the higher rates when disease pressure is severe. Do not apply to trees that are under heat or moisture stress.

Disease	Application Method	Rate	Prevention Program	Control Program
Phytophthora	Foliar Spray	1 to 2 quarts in a minimum of 100 gallons of water per acre. (2.5 to 5 liters in minimum of 1000 liter of water per hectare)	Disease Prevention Program*: Apply lower rate at 2-4 week intervals after plants become established. Do not apply SYSSTEM ZN at intervals less than 3 days.	Disease Control Program*: Apply higher rate at 2-3 week intervals until control is reached. Do not apply SYSSTEM ZN at intervals less than 3 days.
	Soil Drench	12-24 fluid ounce in 100 gallons of water per acre. (1 to 2 liters in 1000 liters of water per hectare.)	Disease Prevention Program*: Apply lower rate at 2-4 week intervals.	Disease Control Program*: Apply higher rate at 2-3 week intervals until control is reached.
Phytophthora	Root Dip	2 quart/100 gallons of water, 2/3 fluid ounce/gallon of water. (5 liters/1000 liters of water)	Apply a pre-plant dip immediately prior to planting. (100 gallons is intended to treat the number of slips required to plant one acre).	

	Trunk Injection	3 teaspoons per linear yard of canopy or 2 inch trunk diameter at breast height. (15 milliliter per meter of canopy. Inject directly into tree trunk.	Apply according to injection equipment instructions. Adjust rate based on injection equipment suggestions. Repeat 2-4 times per year until control is reached.	
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Do not graze livestock in treated conifer nurseries and/or plantations. Do not feed forage to livestock from treated nurseries and/or plantations.

#### TURF

(INCLUDES RESIDENTIAL AND COMMERCIAL LAWN APPLICATIONS BY COMMERCIAL APPLICATORS)

SYSSTEM ZN is a systemic fungicide, which is used for the control of Pythium blight, Summer Complex (Bermuda and others), Dollar Spot, Grey Leaf Spot, Brown Patch, Anthracnose and damping-off diseases to turf grasses on sod farms and lawns, commercial turf production, golf courses (including tees and greens), parks and commercial landscapes. Begin preventative applications when conditions first favor disease and repeat at described intervals. Use higher rates under severe disease conditions.

Disease	Application Method	Rate	Application Program
Pythium (Yellow Turf) Rhizoctonia Sclectinia Helminthosporium Alternaria Anthracnose ( <i>Colletorichum graminicola</i> )	Foliar Spray	2 to 3 fluid ounces per 1,000 square feet. (30 to 60 milliliters per 100 square meters)	Apply amount in minimum of 2 gallons of water per 1,000 square feet. Apply at 10 day intervals, as needed. Do not mow, or irrigate, treated areas until sprays have dried.
	Or	1 to 3 quarts per 100 gallons of water per acre. (5 to 7 liters per hectare)	For sod farms and large areas: Apply diluted solution to thoroughly wet foliage. Apply at 2-3 week intervals, as needed.
	Irrigation	Overhead: 2-3 quarts per 100 gallons of water. (5-7 liters/1000 liters of water)	Apply with normal irrigation schedule on a 10-21 interval, as needed

Do not graze animals on treated turf. Do not feed clippings from treated turf to livestock and poultry.

#### STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal

**PESTICIDE STORAGE:** Keep containers tightly closed when not in use. Keep away from heat and open flame.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**CONTAINER HANDLING:** Use label language appropriate for container size and type.

**CONTAINER DISPOSAL:** Do not reuse empty container. Triple rinse (or equivalent) and offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, keep out of smoke.

**NONREFILLABLE CONTAINERS:** Do not reuse or refill this container Clean container promptly after emptying.

**NONREFILLABLE CONTAINER EQUAL TO OR LESS THAN 5 GALLONS:** Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 120 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**NONREFILLABLE CONTAINER GREATER THAN 5 GALLONS:** Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

#### **LIMITED WARRANTY AND DISCLAIMER**

It is the manufacturer's intention that this product is to be used in accordance with the Directions for Use as stated on this label. The use of this product being beyond control of the manufacturer, no guarantee, expressed or implied, is made as to the effects of such use or the results to be obtained if not used in accordance with printed directions and established safe practice. To the fullest extent permitted by law, the buyer's exclusive remedy and manufacturer's or seller's exclusive liability for any and all claims, losses, damages or injuries resulting from the use or handling of this product, whether or not based in contract, negligence, strict liability in tort or otherwise, shall be limited, at the manufacturer's option, to replacement of, or the repayment of the purchase price for, the quantity of product with respect to which damages are claimed.

Manufactured by: Agro-K Corporation, 8030 Main Street, Minneapolis, MN 55432